SMC-00-488B

April 5, 2004

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572

28 Davis Avenue

Poughkeepsie, N.Y. 12603

Subject:

Serial No. 10/791,014 03/02/04

Chung-Shi Liu et al.

PREVENTION OF POST CMP DEFECTS IN CU/FSG PROCESS

## INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 12, 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date 531 4/13

- U.S. Patent 6,008,120 to Lee, "Silicon Oxynitride Cap for Fluorinated Silicate Glass Film in Intermetal Dielectric Semiconductor Fabrication," teaches use of the oxynitride ARC layer as the means for keeping fluoride away from the metal used to fill a via.
- U.S. Patent 6,103,601 to Lee et al., "Method and Apparatus for Improving Film Stability of Halogen-Doped Silicon Oxide Films," discloses how FSG films can be densified by hydrogen ion bombardment.
- U.S. Patent 6,121,164 to Yieh et al., "Method for Forming Low Compressive Stress Fluorinated Ozone/TEOS Oxide Film," discusses reducing stress in FSG layers.

The following two U.S. Patents disclose methods to form interconnects:

- 1) U.S. Patent 6,130,157 to Liu et al., "Method to Form an Encapsulation Layer Over Copper Interconnects."
- 2) U.S. Patent 6,136,680 to Lai et al., "Methods to Improve Copper-Fluorinated Silica Glass Interconnects."

## TSMC-00-488B

U.S. Patent 6,150,272 to Liu et al., "Method for Making Metal Plug Contacts and Metal Lines in an Insulating Later by Chemical/Mechanical Polishing that Reduces Polishing-Induced Damage," discloses an organic layer over the FSG layer.

Sincerely

Stephen B. Ackerman,

Reg. No. 37761

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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.